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Fieseler

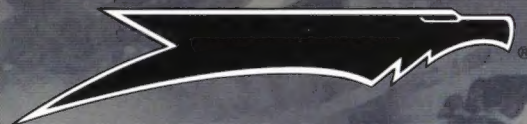
Storch in action



Don Greer

Aircraft Number 198

squadron/signal publications

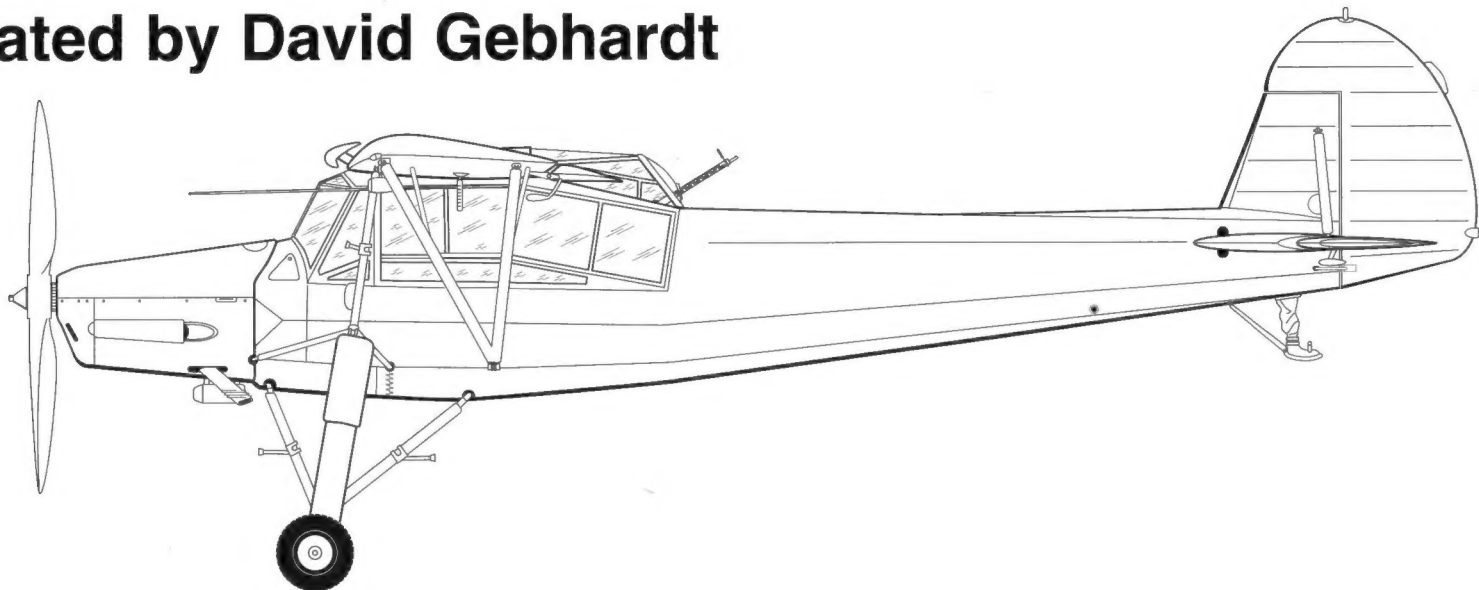


Fieseler **STORCH** in action

By Jerry L. Campbell

Color by Don Greer

Illustrated by David Gebhardt



Aircraft Number 198

squadron/signal publications



Cover: An Fw 156C-3 of I/JG 54 "Greenhearts" used as a courier aircraft on the Eastern Front during the winter of 1941-42.

Dedication:

To my wife, Judith Ellen Campbell, without whose faithful help and devotion this book and other projects would never have been possible.

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(Right) Where the Wehrmacht was found on the ground the Storch was found in the air above them.





(Above) The Fieseler Fi 156V2 Werknummer 602 (D-IGLI), the second prototype of the Storch, was sent to the Luftwaffe's Testing Center at Rechlin in September 1936.

(Below) The Focke Wulf Fw 186 (D-ISTQ) autogyro was rejected out of hand as being too temperamental for front line service in the army co-operation role.



Introduction

William Green, the famed English aviation historian, has described the Fieseler Fi 156 Storch (Stork) as that "...remarkable slow-flying Fi 156 [that] was so appropriately named. This unpretentious, somewhat bizarre braced monoplane, with its extensive high-lift devices, bulged transparent 'conservatory,' and stalky, long-stroke undercarriage designed to absorb the high impact of high vertical descent rates, perhaps most completely represented army co-operation and observation aircraft ideas of the mid 'thirties...."

Designed by Gerhard Fieseler, a 22-victory World War I ace, and his chief designer Reinhard Mewes, both of whom specialized in short takeoff and landing (STOL) aircraft, the Fieseler Fi 156 Storch was to become one of the most prolific STOL aircraft of World War II and certainly one of most successful in its appointed role. Again to quote William Green, "It has been said that wherever the Wehrmacht was to be found so would be found the Storch."

The lightweight fuselage was constructed of rectangular sections of welded steel tubing covered by fabric. Wings were of two-spar fabric-covered wood construction, and tail surfaces were plywood-covered. The entire leading edge of the wing was covered by aluminum slats, and the entire trailing edge of the wing was hinged, the inner portion acting as slotted flaps, the outer sections serving as statically balanced ailerons.

The Fi 156 Storch got its 'appropriate' name from its stalky, long-stroke undercarriage made up of two compression legs of steel-spring, oil-damping shock absorbers in a reverse pyramid hanging from the fuselage and braced to the center underside of the fuselage. A tail skid was installed rather than a tail wheel, although a tail wheel would be installed on some Störche at the end of the war.

The bulged, overhanging plexiglass panels of the cabin provided excellent observation in all directions, and the cabin could accommodate three persons in tandem. The overhead wing center section was also plexiglass, allowing upward vision; all-around observation from the Storch was one of its most important features.

The Storch was powered by the excellent eight-cylinder inverted-vee air-cooled Argus As 10C engine providing 240 horsepower at take-off and turning a 102-inch wooden Schwarz propeller with metal leading edges. Maximum speed was 109 miles per hour at sea level, and cruising speed was 93 miles per hour at an altitude of 3,280 feet. Fuel capacity was 39.6 gallons carried in wing root fuel tanks providing a range of 248 miles at cruising speed.

The second prototype Storch, Fi 156V2 Werknummer 602 (D-IGLI), was actually finished before the V1 and was sent to the Rechlin Test Center in 1936 for evaluation. Results of the trials of the Fieseler Fi 156V2 were far better than anticipated. Takeoff with an eight-mile-per-hour wind was effected in 153 feet and landing in the same wind was effected in only 54 feet. On the basis of these trials the Fieseler Flugzeugbau was ordered to build additional prototypes for further military evaluation.

At the same time it was evaluating the Fi 156 prototype, the Reichluftministerium (RLM), in order to encourage competition among manufacturers, issued competitive bids for other aircraft with flight specifications written around the performance of the Storch and also powered by the Argus As 10 engine. Three competitors would emerge.

The Seibel Flugzeugwerke submitted the Si 201 (D-IWHL), a pusher aircraft with the engine mounted on top of the trailing edge of a shoulder-mounted wing. Although attaining a speed of 185 miles per hour, the Si 201 failed in its landing characteristics and ground handling qualities.

Focke Wulf offered the most radical design when they submitted the Fw 186 gyroplane

(D-ISTQ), based on the licensed de la Cierva C19 and C30 autogyros. It was rejected out of hand by the RLM as being too temperamental, as rotorcraft were considered to be far too early in their development to be of any practical use.

The Bayerische Flugzeugwerke (Messerschmitt) submitted the Bf 163 (D-IUCY), but BFW was heavily engaged in development of the Bf 109 fighter aircraft, and the Bf 163 prototype was completed far too late to be considered.

On the basis of tests at Rechlin several improvements were made to the Storch. The slats were shortened, the continuous axle was deleted, and the wing was straightened to eliminate dihedral.

By the time its rivals were flying, the Storch was in serial production and coming off the assembly line. In early spring of 1937 the first of 10 pre-production Fi 156A-0s began leaving the factory and were immediately put into military service trials. The official public debut of the Storch was made with one of these pre-production machines on 1 August 1937, when D-IFMR was demonstrated at the Fourth International Flying Meet at Zurich-Dubendorf airfield in Switzerland where it gave a spectacular STOL performance. The performance of the Dornier Do 17 and the Bf 109 at this meet also swept the board; Germany again was a world air power with these prototypes.

The initial Fi 156A-1 production aircraft (serials 615 to 620) were produced as utility aircraft suitable for both civilian and military use. Fieseler had planned to produce a commercial Storch with movable leading edge slots under the designation Fi 156B-1, but with war looming just over the horizon, there was little possibility of producing a commercial aircraft, and even though a market existed, the B-series did not materialize.

By the summer of 1937 the Luftwaffe had fully evaluated the Fw 156A-0 and had come to fully appreciate the military potential that the aircraft could play in battle situations. It could fly as slow as 32 miles per hour in still air, and with a headwind it could virtually hover over the ground. Both the Luftwaffe and the Wehrmacht could envision an almost endless number of tasks for the Storch, from artillery spotting to supply dropping and even including bombing.

The Storch was large for its job; the U.S. Army Piper L-4 Grasshopper carried out nearly all the same tasks with a 65-horsepower engine rather than the 240 horsepower of the Argus.

One set of tests against fighters proved the superb defense of the nimble little aircraft, when fighters armed with gun cameras could not maneuver to get a single picture on their gun camera film when the Storch was flying at around 34 miles per hour.

Production of the Fi 156 was 227 in 1939 and 216 in 1940 and almost doubled to 430 in 1941. A total of 2,871 Fi 156 Storch aircraft were delivered to the Luftwaffe with small numbers being passed on to Germany's allies — Bulgaria, Croatia, Finland, Hungary, Italy, Rumania, and Slovakia — all of which were fighting on the Eastern Front.

Surprisingly, there was no reported use of the Storch flying night harassment missions over the front lines on the Eastern Front.



(Above) Seibel submitted an unusual pusher aircraft with the Argus engine mounted on the trailing edge of the shoulder wing with the tail assembly mounted on a long single boom.

(Below) BFW's submission, the Bf 163, was outwardly similar in design to the Storch, but was submitted too late to be considered. The Bf 163V1 (D-IUCY) was the only prototype built, and after cursory testing the project was abandoned.



Fi 156A-1 Storch

As evaluation of the Storch got under way, Gerhard Fieseler was instructed to expand production facilities at Kassel-Bettenhausen, and in late 1937 production contracts were forthcoming for production of the Fi 156A-1 with orders to again enlarge production facilities. Initial production was barely one per week, but by the end of 1938 production had increased to three per week.

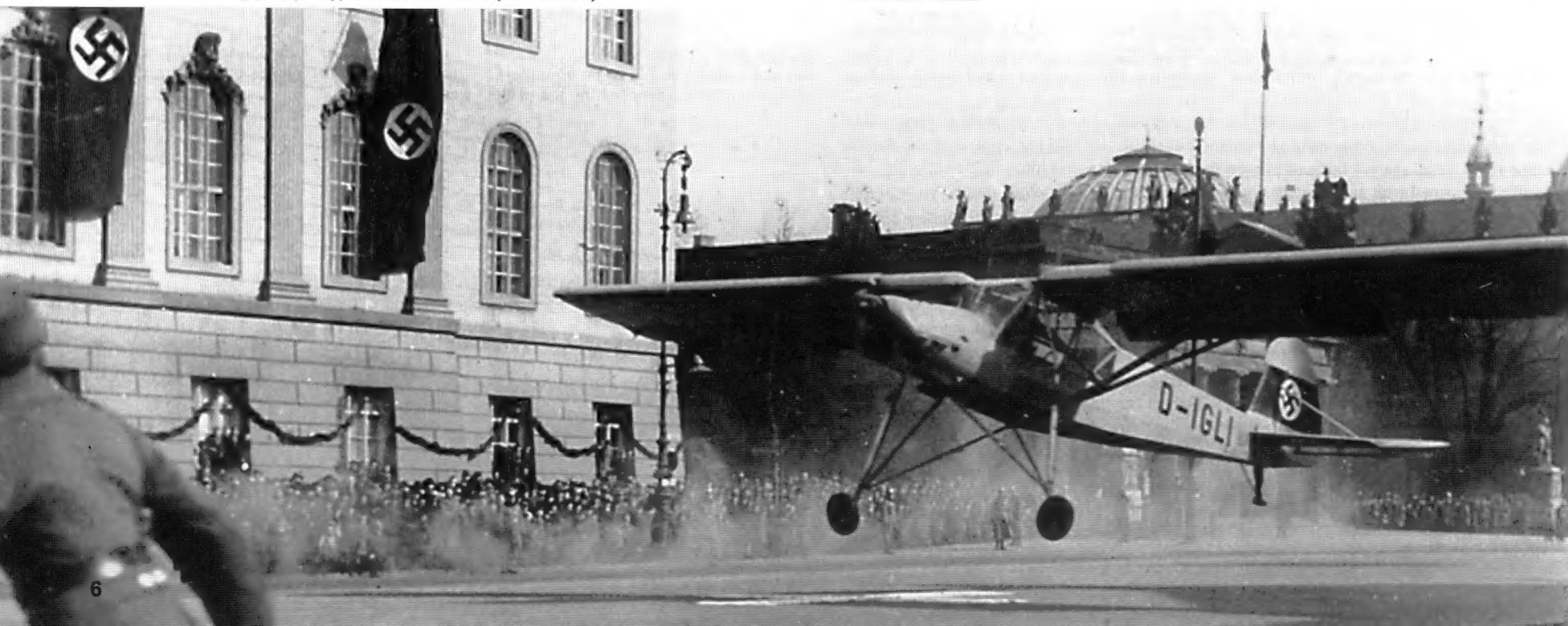
The Fieseler Fi 156A-1 Storch was a utility and liaison aircraft. Six early production Fi 156A-1s were sent to Spain for testing and evaluation under actual combat conditions by the Legion Condor. Combat reports from Spain were extremely favorable; the airplane was even used as a makeshift bomber, albeit carrying small bombs or grenades which were thrown out of the cabin by the pilot or passenger.

Production tempo increased considerably in 1939 with a Storch being assigned to virtually every Gruppen in the Luftwaffe and as many as possible to Wehrmacht reconnaissance units.



(Above) Fi 156A-0 V2 (D-IDVS) went into the flight testing program in July 1937. The slats have been shortened, the continuous axle has been deleted, and the wing dihedral has been eliminated.

(Below) The Storch was officially announced to the German public when the fully modified Fi 156 V3 landed and took off in front of the Neue Wache on Berlin's Unter den Linden on Wehrmacht Tag (Army Day) in March of 1939. (H. Nowarra)





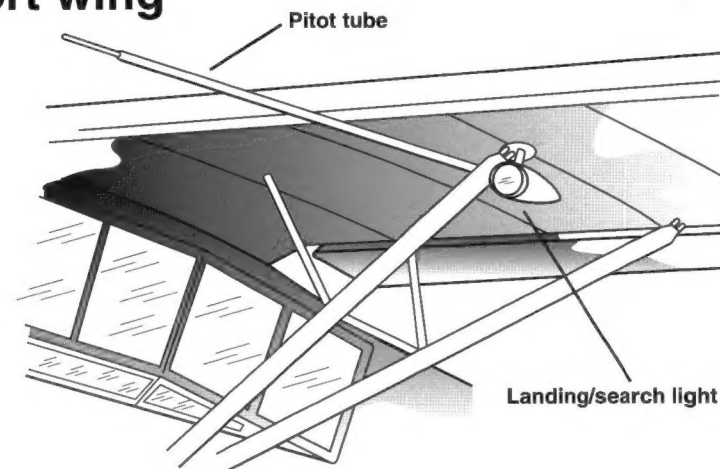
(Above) The Storch was put through rigorous military field trials with both the Luftwaffe and the Wehrmacht. This Storch (4E+ON) is marked with very early type of crosses on the wings and fuselage. (Smithsonian)



(Above) Six of the earliest Fi 156A-1s were sent to the Legion Condor in Spain where they were tested under combat conditions. Here 4602 sits in a hangar after maintenance. Besides training Luftwaffe personnel, the Storch was also used to train Spanish personnel. This early machine has no landing/search light or pitot tube on the port wing. (H. Obert)



Port wing

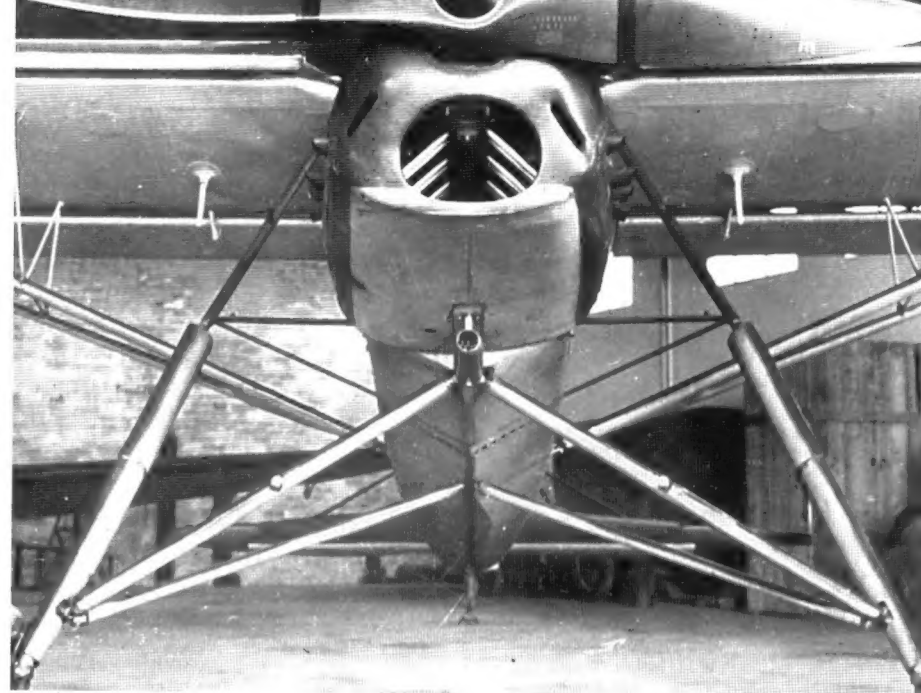


(Left) Legion Condor 4604 undergoes a pre-flight check prior to a reconnaissance mission over the front lines. The white rudder carries a black cross; the light blue wing undersides carry a white cross near the white wing tips. (Luftfahrt)

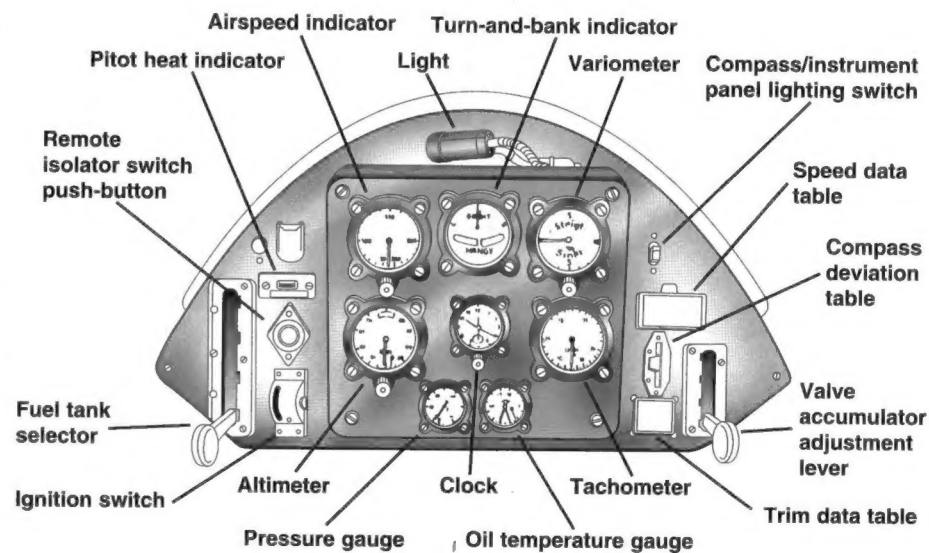


(Above) When the Legion Condor returned to Germany they turned over most of their equipment including their Fi 156A-1s to Grupo 46 of the Fuerzas Aereas Nacionales (Group 46 of the Spanish Nationalist Air Force).

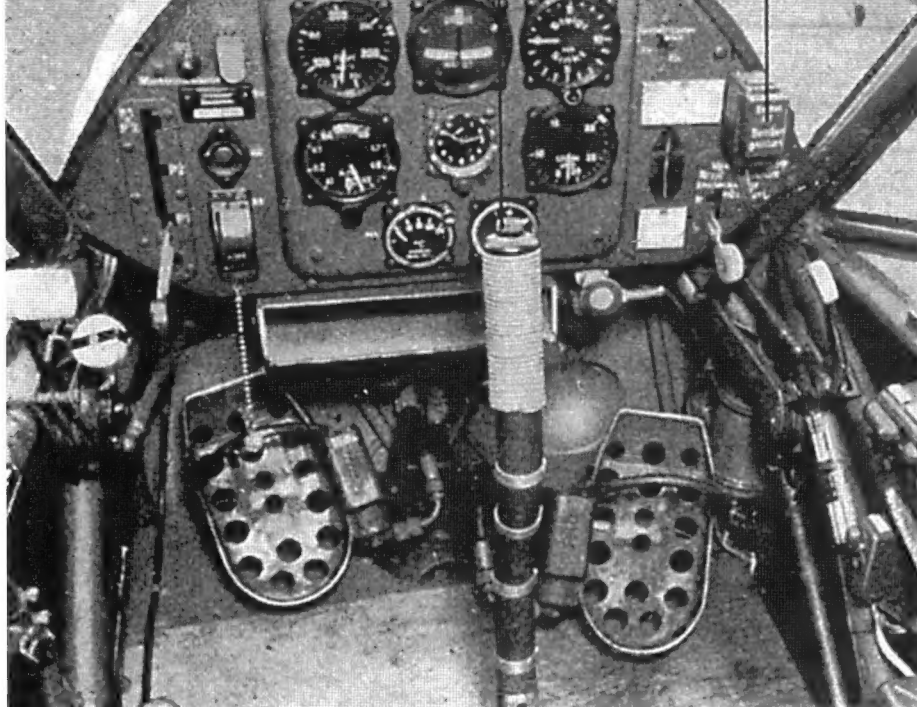
(Below) The invasion of Poland saw real testing of the Storch in every possible combat role by both the Luftwaffe and the Wehrmacht. This Fi 156C-1 of Fernaufklärungsgruppe 10 "Tannenburg" is at a forward airstrip during the early stages of the Polish campaign. (H. Obert)



(Above) The eight-cylinder inverted vee air-cooled Argus engine required a large air intake to prevent overheating. The propeller was a 102-inch wooden Schwarz with metal anti-erosion inserts on the leading edges.



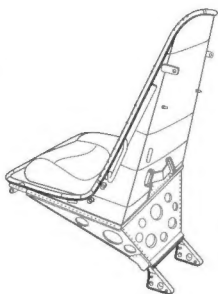
Fi 156C Instrument Panel



(Above) The cockpit was well laid out and extremely compact with a minimum of instruments. Few Störche were equipped with a radio.¹³

Cabin Details

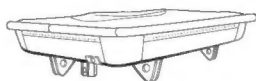
**Pilot's
seat**



**Passenger
seat**



**Emergency
third seat**



**Control
stick**



(Above) This view looking forward shows the seldom-seen rear-facing passenger seat attached to the back of the pilot's seat.

(Below) The mount of a high-ranking officer, this Fi 156C-1 is equipped with a rare radio. The letter "K" is red outlined in white; strangely, the aircraft carries no national markings on the fuselage or under the wings.





(Above) A heavily camouflaged Fw 156C-1 Storch is hidden along the French border just before the invasion of the West.



(Above) This reconnaissance unit in the Balkans is equipped with Fw 156C-1s as well as a detachment of motorcycles. At least two additional Störche can be seen parked along the quay.



(Above) The eight-cylinder 240-horsepower Argus As 10C air-cooled engine was rugged and dependable and required minimal but regular maintenance. These schwarze men are French civilians employed by the Luftwaffe and are working on the Argus engine of a Storch.

Fi 156C-1 Storch

The B-series was to be a Storch built for the commercial market, but it was quickly abandoned.

On the basis of combat experience in Spain, defensive armament of an aft-firing 7.9mm MG15 machine gun was installed and tested on the pre-production Fi 156C-0. It was mounted in and fired through a circular lens at the rear of the cockpit. The machine gun was not added to the production Fi 156C-1 which was primarily a staff transport and liaison aircraft.

Small numbers of Störche were exported to Finland (two) and Switzerland (six), and Herman Göring presented a Storch to Mussolini and even one to Stalin.

Stalin was so impressed with the Storch that he ordered it to be copied. One of the important features of the Storch was the air cooled engine that started even in the cold of Russian winters. A factory was set up in Estonia to manufacture a copy of the Storch, but the German army overran it before production could begin.



(Above) Visibility from the Fi 156 was superb. With the outward angled windows at the pilot's elbow and those above, an observer could view straight down as well straight up, an astonishing 360 degrees.



(Above) It was a reassuring feeling to Wehrmacht soldiers knowing that Störche reconnaissance aircraft would pinpoint the enemy over the next ridge.



(Above) The broad Russian steppes proved the usefulness of the Storch. B2+PK lands on a dirt road during the invasion of Russia in the late summer of 1941. It carries the yellow Eastern theater markings on the fuselage and wing tips.



(Above) Seen here under guard, ST112 was one of two Fi 156C-1s exported to Finland. The trailer contains a fuel tank. The medium blue swastika used by Finland predates its use by the Nazis by some twenty years and has no relationship to fascism.



(Above) ST-112 was later fitted with skis for winter operations. During the winter the Finnish Air Force flew many aircraft equipped with skis including both fighters and bombers.



(Above) An Fi 156C-1 comes in for a landing in Russia during the early months of Barbarossa. One of the few radio-equipped Störche, as indicated by the mast, it probably belonged to a high-ranking officer. The shield on the cowlings belongs to a panzer regiment.



(Above) 6M+YN of Küstenflieger Krim in the Crimea during the winter of 1941/42. The device hooked up to the Storch provides heated air to assist in starting the engine. (H. Obert)



(Above) Behind the Gruppe's Storch, Bf 109s are refueled and rearmed for another mission. Each Luftwaffe Gruppe was theoretically assigned a Storch, but as the war went on and the Wehrmacht's need became overwhelming, fewer Störche went to Luftwaffe Gruppen. (H Obert)

(Below) The battles on the Eastern Front left few buildings intact and useful like these hangers that are being used by a reconnaissance unit. The nose of a Storch can just be seen in the opening of the first hanger. Having an indoor location to perform maintenance was a rarity when operating as close to the front as the Storch did.



Fi 156C-2 Storch

The Fi 156C-2 Storch featured as standard an aft-firing Rheinmetall-Borsig 7.9 mm MG15 machine gun in a flexible mount in the rear of the cockpit, as tested on the pre-production Fi 156C-0. A permanent seat for an emergency third crew member was also installed in the C-2, and provision was made for mounting a vertical camera in the rear of the cockpit, reducing crew capacity to two persons. Late machines were modified to carry wounded on a litter.

(Right) The Fi 156C-2 differed little from the Fi 156C-1 except for the addition of a defensive aft firing flexible 7.9 mm MG 15 machine gun mounted in a circular lens. The gun was more for respect than real protection; the slow speed of the Storch was its best defense from attacks from the air.

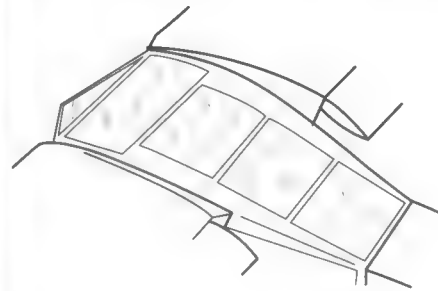
(Below) 2E+RA carries an infantry badge on the cowl; the aircraft code is black outlined in white, and the fuselage band is yellow. This reconnaissance machine is being prepared for an early morning mission over Russian lines.



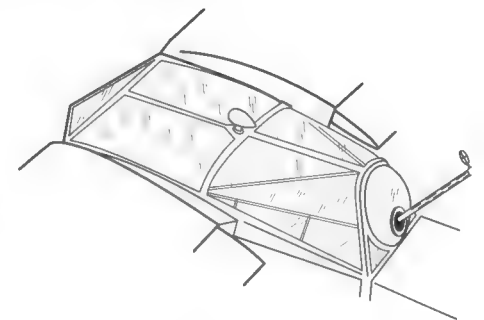


(Above) The ability of the Storch to land and take off on rough terrain was phenomenal and was often tested in the east. This Fi 156C-2 attached to a Panzer Division is seen just prior to OPERATION ZITADEL.

Cabin roof variations



Fi 156C-1



Fi 156C-2

7.9 mm MG-15

(Left) The flexible aft-firing 7.9 mm Rheinmetall-Borsig MG 15 was mounted in a rotating transparency at the rear of the cabin. Four magazines (two of 50 rounds) were mounted on the rear wall of the cabin. The leather egg shaped device is a spent cartridge holder.

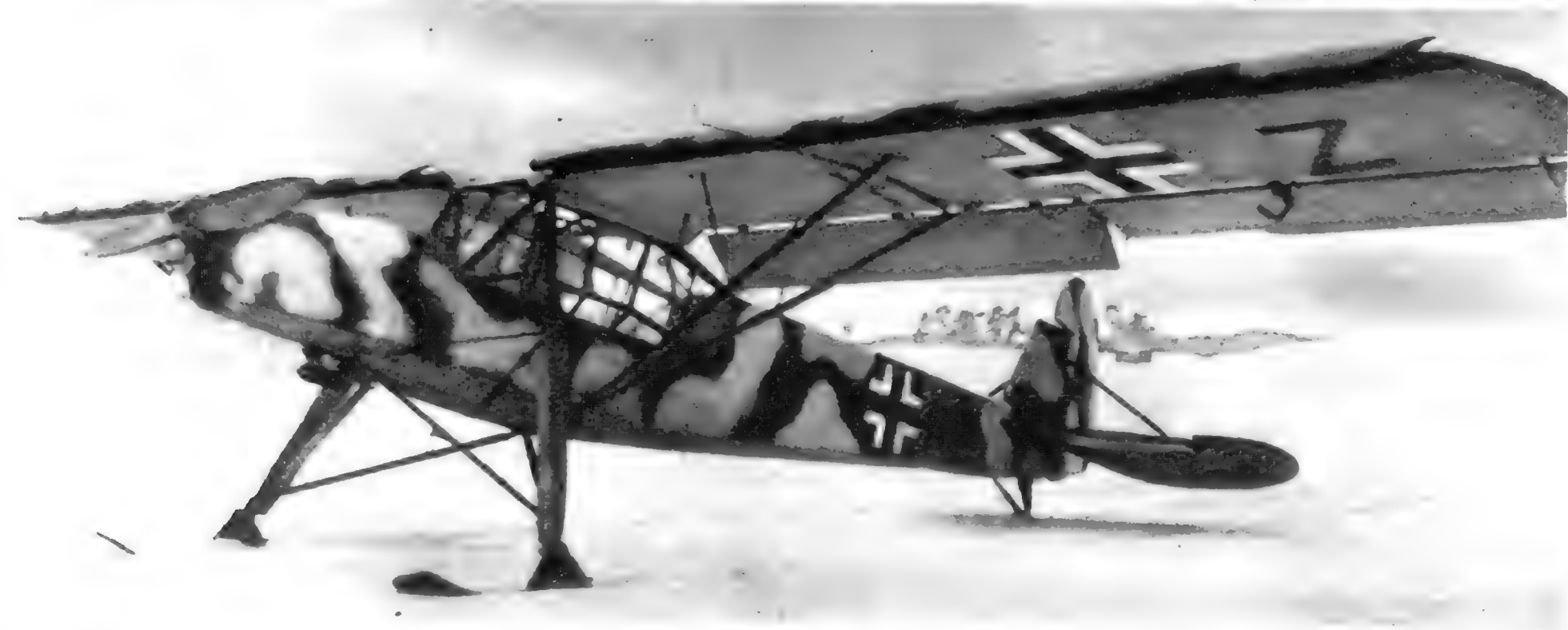


CK+KD, an Fw 156C-2 Storch of an unknown unit.



(Above) The wide expanse of the Russian steppes is vividly seen behind TK+JE, pointing up the need for a staff and reconnaissance aircraft such as the Storch. (Peter Buchar)

(Below) This Fi 156C-1 with skis has had white temporary paint added to the standard Dark Green camouflage paint. The undersurfaces are Light Blue.





(Above) A Rumanian general arrives in a Storch for a conference with the German high command on coming operations. The Rumanian Army was one of the more effective of Germany's allies, although it was poorly equipped. The Rumanians would eventually receive some 45 Störche.

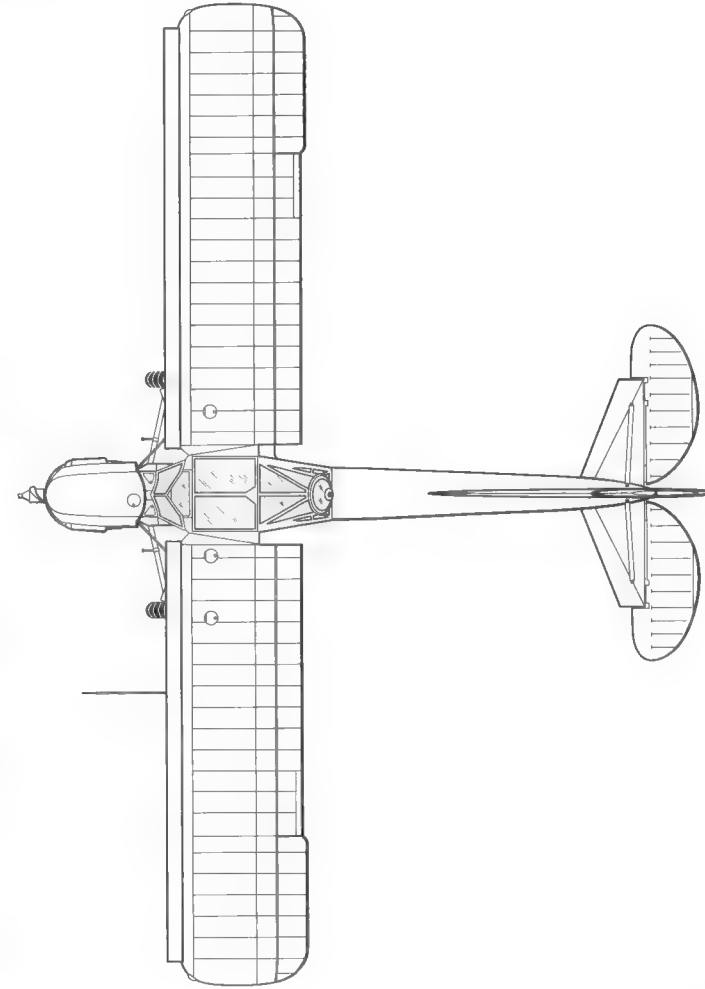
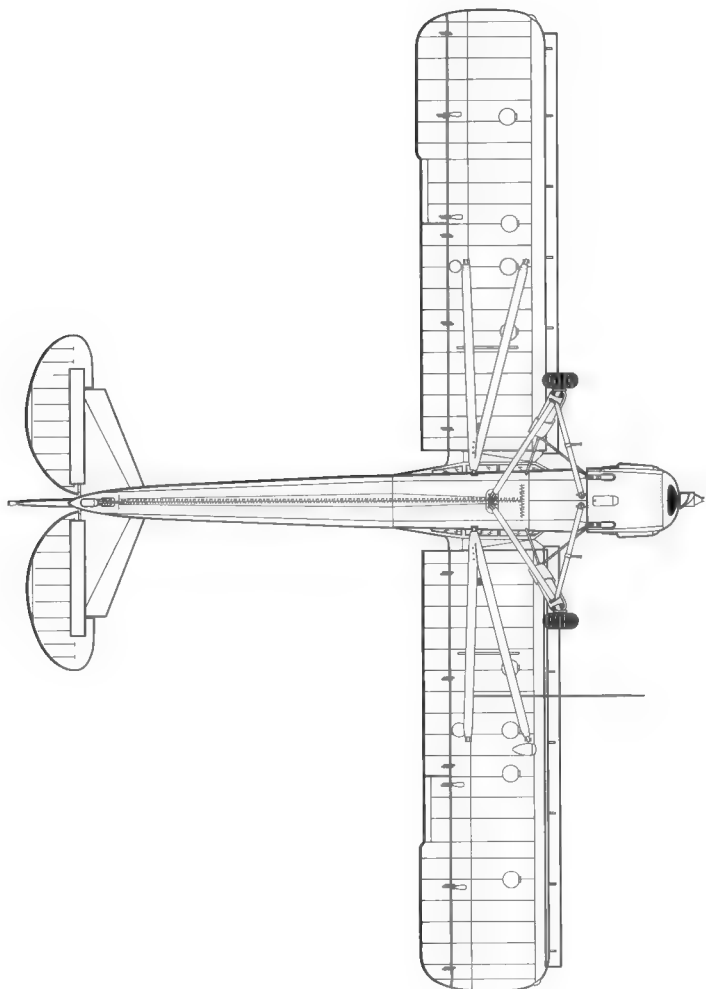
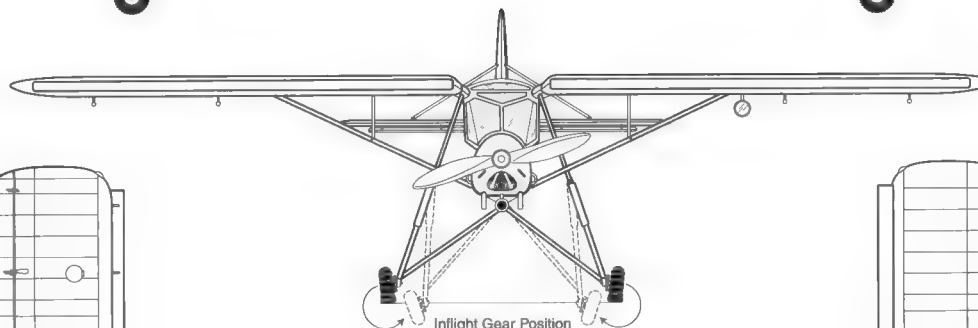
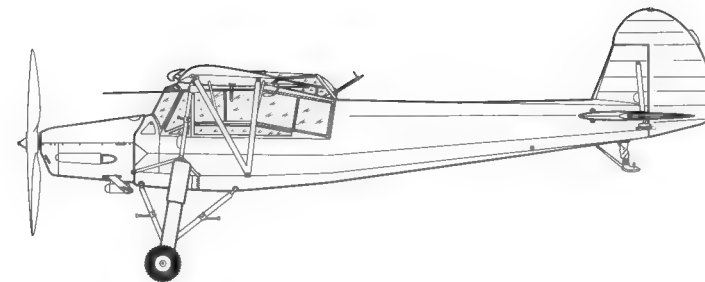
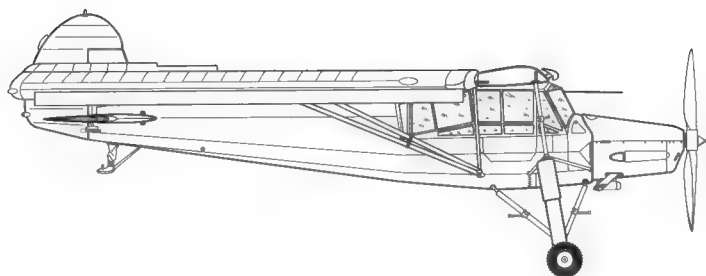
(Right) 9.(H)/LG 2 was the reconnaissance staffel of Lehrgeschwader 2 (Training Wing 2) and was equipped with three Hs 126s, one Bf 109, and two Fi 156C-2s. All aircraft carried a griffin in a shield emblem on the nose.

(Below) An SS general is greeted on a late afternoon tour of his troops. The SS always had priority of equipment including the Storch.





The landing light and pitot tube of the Storch both were mounted on the port wing. Coded 5F+XH, this Storch in the Balkans not only carries a narrow yellow band on the rear fuselage but also a complete yellow cowling.



Fieseler Fi 156C-3 Specifications

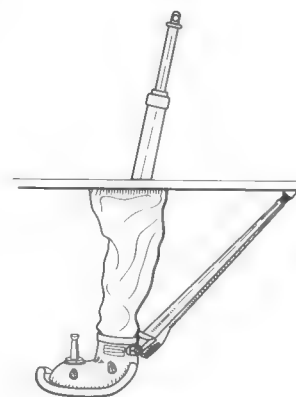
Length 32 ft. 5 1/2 in.
 Wingspan 46 ft. 9 in.
 Height 10 ft. 0 in.
 Weight, empty ... 2,050 lb.
 Weight, loaded ... 2,920 lb.
 Engine One Argus As 10C-3
 8-cyl inverted-vee
 air-cooled engine
 rated at 240 hp
 (takeoff)
 Maximum speed .. 109 mph at sea level
 Cruising speed ... 93 mph at 3,280 ft
 Fuel 39.6 gal.
 Range 248 mi. at 93 mph
 at 3,280 ft.
 Rate of climb 905 ft. per min.
 Service ceiling ... 15,090 ft.
 Armament One aft-firing 7.9 mm
 MG 15 machine gun



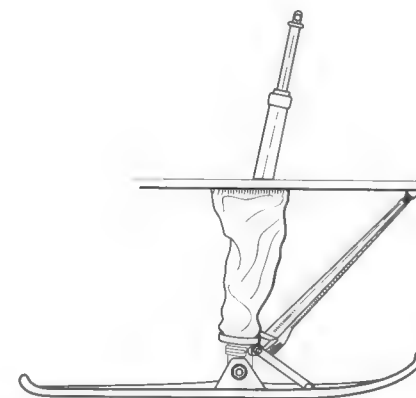
(Above) An eagle over an advancing tank symbolized the role of this aircraft, that of tactical reconnaissance for a panzer unit. The Henschel Hs 126 was also a much-used reconnaissance aircraft.



(Above) As the Russian winter of 1941-42 set in, the Storch found it increasingly difficult to operate from forward airfields or to land in the snow-covered fields. PV+ZO is seen here taking off from a lightly covered field with wheels, but not for much longer.



Tail skid



Tail ski

(Left) The fuel tanks of the Storch were mounted in the wings on either side of the cockpit and were usually refueled from cans, containers that became famous the world over as "jerry cans."



(Above) A simple set of skis attached to the long stroke undercarriage solved the snow problem and extended the winter usefulness of the Storch. Even in very deep snow the Storch could take off and land if the snow was frozen hard enough.



(Above) With a passenger aboard, the pilot of DJ+RF warms up the engine preparing for take-off. The emblem on the fuselage just below and in front of the windscreen is believed to signify a courier Staffel.



Main skis

(Right) A hasty but very effective whitewash camouflage has been smeared on all upper surfaces of DJ+RF, but not obscuring the code letters or national insignias. The lower surfaces are Light Blue with no whitewash.





NE+DN, a staff Fi 156C-2, has landed in snow not quite too deep to operate in, but it won't be long before the snow prevents operations unless it is frozen hard. The pilot is dressed in a warm sheepskin parka. Unlike the Wehrmacht, whose clothing was poorly suited to

the Russian winter, the Luftwaffe was much better prepared for the cold with warm clothing and specialized equipment.



One of six FI 156C-1 Störche sent to the Condor Legion in Spain for testing and evaluation under combat conditions.



An early FI 156C-1 used during the invasion of Poland in overall 70 Black Green over 65 Light Blue.



FI 156C-1 of Aufkl. Gr. 41 in Greece in May 1941. Colors are 70 Black Green and 71 Dark Green over 65 Light Blue with yellow tail and cowlings.



One of two FI 156C-1 Störche supplied to Finland in 1940. The Finns were masters at designing and using skis on their aircraft including fighters and bombers.



Fuselage emblem



FI 156C-1 of the Regia Aeronautica Commando Aeronautica Albania seen at Tirana in 1941.



Infantry Badge



Fi 156C-2 of a reconnaissance staffel supporting an Infantry division and carrying an Infantry Badge on the cowling.



Cowling emblem



Fi 156C-2 (Werknummer 5840) of a courier Staffel in Russia 1941/42.

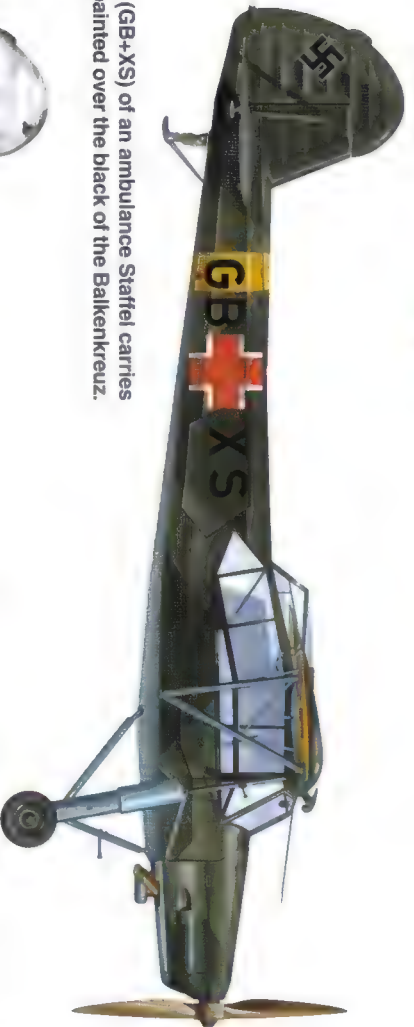


Cowling emblem



Fi 156C-3/Trop operated by 2.(H)/14 on tank spotting duties for the Afrika Korps.

This Fi 156D-1 (GB+XS) of an ambulance Staffel carries the red cross painted over the black of the Balkenkreuz.



A heavily whitewashed Fi 156D-1 ambulance operating in Finland. Even the yellow fuselage band has been whitewashed.





(Above) As the German Army moved across the Steppes the Russian Army carried out a "scorched earth" policy, burning everything possible and leaving very little winter shelter for the Germans. One of the tasks assigned to the Storch was to find anything useful to ward off the cold.

(Below) Whenever Croatian crews operated aircraft the Croatian coat of arms was found on the aircraft along with German national insignia. A number of complete Croatian Staffeln operated in the Luftwaffe including Jagstaffeln. (H. Obert)





(Above) Parked next to a Focke Wulf Fw 58 Weihe on a snow-covered airfield in Norway, this Storch, H3+BR, is having its starboard wing tank refueled. It carries the yellow Eastern Front fuselage band.

(Below) This Fi 156C of Nachtjagdgeschwader 200 was used in 1945 for liaison and cable-laying duties. (Heinz Nowarra)





(Above) A hard, frozen snow surface such as this was ideal for a ski-equipped Storch to land on and take off. However, under such conditions both landings and takeoffs required more distance.

(Below) The flight of this Storch over a Russian city without skis would indicate that it is likely operating from a cleared and maintained landing field.



Fi 156C-3 Storch

The Fi 153C-3 was built as a multi-purpose aircraft for close reconnaissance, communications, ambulance duty, and rescue operations. Late Fi 156C-3s introduced the improved 270-horsepower Argus As 10P. The Fi 156C-3/Trop had all weapons removed and was fitted with internal dust filters and survival equipment for use in the desert. The Fi 156C-3/Trop was used extensively in the Western Desert and also southern Russia.



(Right) From the expanse of the frozen steppes of Russia to the burning sands of the Western Desert of North Africa the Fi 156 Storch served in the role it was required to perform. PP+QL has been painted in a light sand scheme, but has not yet had the white theater markings added.

(Below) The Fi 156C-3/Trop with added dust filters and desert survival equipment was standard in the North African Theater. One of the most important roles carried out by Wüstennotstaffeln (rescue squadrons) flying the Storch was finding and rescuing downed pilots in the desert.





(Above) The Storch carried a variety of camouflage schemes. This Fi 156C-3/Trop is in overall Sand Brown with large green blotches. The underside is Light Blue with heavy exhaust staining.



(Above) Generalfeldmarschall Albert Kesselring climbs into the pilot's seat of his Storch, which he flew regularly until he was shot down, after which he switched to a twin-engine Fw 189. The aircraft is marked with a Luftwaffe eagle and crossed Feldmarschall's batons.

(Below) Besides rescuing downed Luftwaffe airmen, Störche flew more than one stranded Allied airman out of the North African desert. However, the pilot of this Storch

is just looking over the downed RAAF Kittyhawk III (P-40K). (Smithsonian)





(Above) The Italian Army received a number of FI 156C-2s and C-3s, many of which operated in the Western Desert. This Italian Storch carries no white Mediterranean theater band on the fuselage as normally carried by Axis aircraft in the Mediterranean Theater.

(Left) The desert heat, sand, and dust caused increased engine wear, which in turn required increased maintenance, which often had to be carried out in rather primitive conditions.

(Below) CB+TQ was attached to an Africa Korps light reconnaissance unit that also had motorcycles and light trucks.





(Above) Coded 5F+XK, this Fi 156C-3/Trop is heavily camouflaged with Dark Green squiggly splotches over the desert Sand Yellow.

(Right) Conditions in southern Russia were hot and dusty, resembling those of the Western Desert, and tropicalized Störche were often requested. This Fi 156C-3/Trop has had Light Green splotches added to the normal Dark Green.

(Below) SF+RL, a staff transport, lands at an airfield used jointly by the Luftwaffe and Regia Aeronautica. Both the Germans and Italians used white fuselage identification bands in the Mediterranean Theater.





(Above) On 12 September 1943 SS Hauptsturmführer Otto Skorzeny used an Fi 156C-3 Storch (SU+LL) to liberate Benito Mussolini from captivity in the Gran Sasso mountain

hotel at an altitude of 9,000 feet. Skorzeny is in the rear emergency seat, Mussolini is in the passenger seat, and the pilot, Hauptman Gerlach, is about to board the aircraft.

Fi 156U

In 1940 the Erprobungsstelle at the Rechlin test center evaluated the Storch as a possible anti-submarine aircraft. Three ETC 50 bomb racks were installed on an uprated Fi 156C-2, one on each set of wing struts at their wing attachment points, and a third on the centerline between the cross bracing of the landing gear. Each bomb rack could carry a single 110-pound SC 50.

An ASK-R bomb release was mounted over the port window, and a ZSK 244 fuse box was mounted over the door on the starboard side. A Revi C/12/D dive bombing sight was mounted on the instrument panel coaming.

Trials were also conducted with a 298-pound captured French depth charge but, like the bombing trials, did not result in an anti-submarine Storch.

(Below) Three ground crewmen, called schwarze men (black men) because of their black uniforms, load an SC 50 bomb onto the starboard ETC 50 bomb rack of the Fi 156U. The bomb racks were attached to the wing bracing strut at the the front and rear wing attachment points.



(Above) A ZSK fuse box was mounted just above the door window. On top of the instrument panel is a Revi C/12/D dive bombing sight. A compass is mounted at the top of the windshield.

(Below) Under the designation Fi 156U, Fi 156C-2 CQ+QS was modified at the Rechlin test center to carry three SC 50 bombs on ETC 50 bomb racks.



Fi 156C-5 Storch

The Fi 156C-5 standardized on the more powerful 270-horsepower Argus As 10P engine. Provision was made under the fuselage for carrying a drum camera or an additional 22-gallon fuel tank on the underside of the cowling. The extra fuel tank extended the range of the Storch from 248 miles to 628 miles. Extended exhaust pipes which routed hot gases away from the fuel tank were installed on some Störche when the extra tank was carried.

The Argus AS 10P air-cooled engine initially had some overheating problems. A field solution was to remove the outer cowl panels to let additional cooling air flow over the engine. The production solution was to increase the size of the oil cooler.

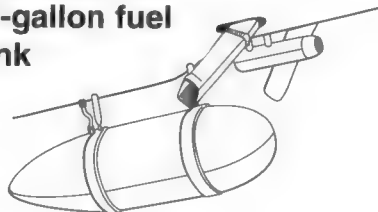
The Fi 156C-5/Trop was fitted with internal dust filters and survival equipment for use in the desert.

Exhausts

Fi 156C-3



Fi 156C-5 with
22-gallon fuel
tank



(Above) The uprated Argus As 10P of the Fi 156C-5 was sometimes prone to overheating. A field solution was to remove an engine panel on one or both sides of the cowling, allowing more air to circulate and cool the engine. For safety reasons, when provision was made for carrying an extra fuel tank, the exhaust pipes were extended away from the tank.

(Below) The Fi 156C-5 standardized on the more powerful 270-horsepower Argus As 10P engine and was often equipped with a 22-gallon auxiliary fuel tank hung under the belly between the undercarriage cross bracing. PV+ZJ is the VIP transport of a General.





A Luftwaffe pilot waits to ferry a general officer of one of Germany's eastern allies. The additional range provided by the 22-gallon underbelly fuel tank was especially important

on the Eastern Front. The extended exhaust pipe can be seen above and just in front of the fuel tank.



(Above) GA+TQ, an Fi 156C-5 with the engine panels removed, prepares for takeoff. The propeller boss has been painted a bright shimmering white. Flaps have been fully lowered.

(Below) BM+PD, an Fi 156C-5, is believed to be the VIP transport assigned to General Model. It has had the engine panels removed, but does not have the extra fuel tank.





(Above) B1+BB, the personal Storch of General Wenck during OPERATION BARBAROSSA, has been updated with the 270-horsepower Argus As 10P engine and has had an additional long-range fuel tank retrofitted to the underbelly, increasing the aircraft's range from 248 to 628 miles. The exhaust pipes are unchanged, but the fuel tank is mounted much further aft than standard.

(Below) Wenck's machine has essentially been brought up to C-5 standards. A Storch seldom is seen with a work number, but B1+BB has the *Werknummer* '4242' in white on the fin, probably added during the update work. While the auxiliary fuel tank is standard, its fairing and placement are not.





This Fi 156C-2 has been completely rebuilt to C-5 standards with a 270-horsepower Argus AS 10P engine with long exhaust pipes and an underbelly 22-gallon fuel tank retrofitted. Finding a

village that was not burned out and offering shelter was welcomed by the Wehrmacht. Of course, in their retreat the Germans burned most of what was still standing. (Smithsonian)



The Storch was light and moved easily on skis. Here two ground crewmen are holding this Fi 156C-5 back until the engine speed is high enough for a short takeoff. The airstream

from the propeller has worn off the whitewash from the wings next to the upper glass area.

Fi 156D-1 Storch

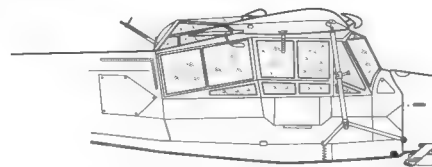
Manufactured alongside the C series, the Fi 156D-1 was primarily an ambulance Storch used by Wüstennotstaffeln (rescue squadrons). An enlarged upward-hinged loading door was installed on the starboard side of the fuselage just behind extended aft-fuselage plexiglass panels which were hinged to swing downward.

When both the fuselage panel and the glass cabin panel were open, a patient on a litter could be accommodated along with an attendant on the emergency seat. If no attendant was accompanying the wounded, the emergency seat could be removed and a second litter could be carried.

The D-1/Trop was equipped with sand filters, emergency landing packs, and an enlarged oil filter.

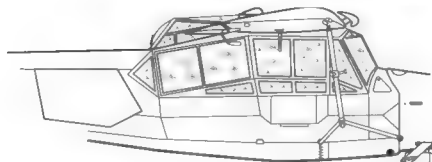
(Below) The Fi 156D-1 ambulance was easily recognized by the addition of a triangular window at the rear of the cabin. The machine gun was removed, and hardware was installed to accommodate up to two litters. A red cross was usually painted on the fuselage, top and bottom of both wings, and sometimes the tail.

Fuselage Variations



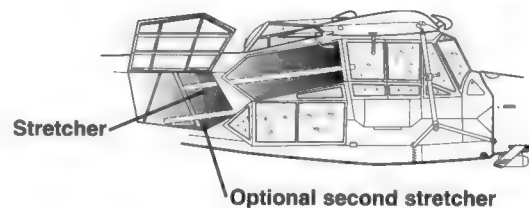
Fi 156C-2

Reconnaissance/
Liaison



Fi 156D

Ambulance





(Above) By opening the large upward-swinging fuselage panel and the downward-swinging glass panel, a litter with wounded could be slid into the the rear of the cabin for transport.

(Above left) When no medical attendant accompanied the wounded, the emergency seat could be removed and a second patient on a litter could be carried by an Fi 156D-1. The port side window and panel could also be opened to allow the loading of wounded.



Red Cross insignia

(Left) The loading of wounded could be accomplished in a matter of minutes, and the ambulance Storch could be back in the air with the wounded on the way to a hospital.



(Above) Coded GB+XS, this Fi 156D-1 on the Eastern Front is marked with a red center to the Balkenkreuz in all six locations signifying its use as an ambulance aircraft.

(Below) A second patient is being loaded into GB+XS. Loads like this made the uprated 270-horsepower Argus As 10P even more important.



(Above) The two wounded in the back of GB+XS seem reasonably comfortable for a hopefully short ride to a hospital far in the rear of the front lines

(Below) While the MG 15 machine gun was not installed on the Fi 156D-1, the raised aft glazing and gun mount remained, providing welcome additional space for the wounded.





(Above) CI-QZ is not whitewashed but painted overall white with oversized red crosses on the wings and tail. A very small swastika is carried on the front of the fin.

(Below) Flying over the vast Tunisian landscape, ND+OQ ferries wounded to a hospital. As in the East, the vast expanse of North Africa made the Storch an essential piece of equipment. A sun shade seems to be covering the upper glass.





The F1 156 Storch had a role to play wherever the German army was in World War II. Coded KR+QZ, this Storch is seen on a frozen lake in Norway.



This Fi 156D-1 ambulance in Africa is painted all white and carries markings reminiscent of prewar markings, including a red band and a swastika in a circle on the tail.



(Above) Russia
(Below) Africa

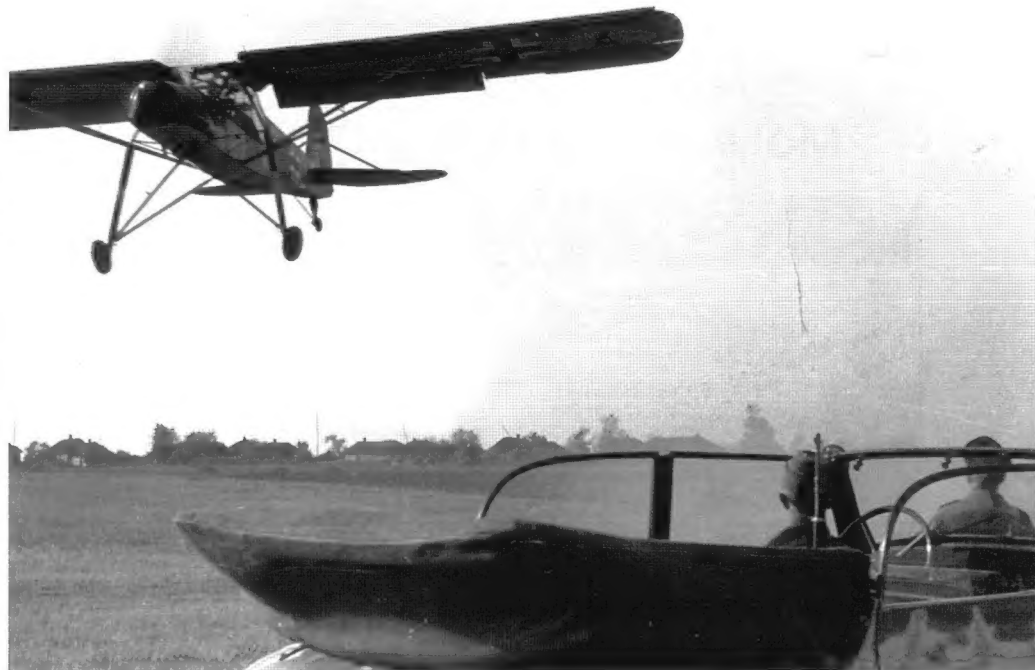


(Above) Balkans
(Below) Russia





(Above) Russia
(Below) Russia



(Above) Russia
(Below) Norway



Achtung!

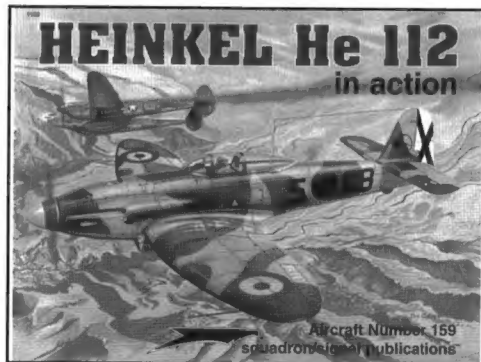
More World War II German aircraft from squadron/signal publications



1057 Messerschmitt Bf 109, Pt. 2



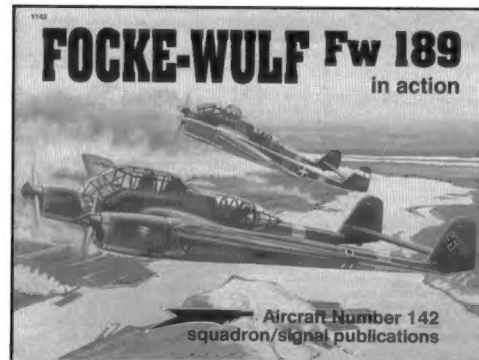
1113 Ju 88, Pt. 2



1159 Heinkel He 112



1073 Ju 87 Stuka



1142 Focke Wulf Fw 189



1170 Focke Wulf Fw 190



1085 Ju 88, Pt. 1



1147 Me 210/410



1184 Heinkel He 111



(Above) Coded BM+PD, this early Fi 156C-5 was the personal transport of General Model. Cowling panels have been removed to prevent overheating of the 270-horsepower Argus engine.

(Below) SS Hauptsturmführer Otto Skorzeny rescued the deposed Italian dictator Benito Mussolini from Gran Sasso in this Fi 156C-3 Storch.

